GOVERNMENT OF INDIA
CONSUMER AFFAIRS, FOOD AND PUBLIC DISTRIBUTION
LOK SABHA

UNSTARRED QUESTION NO:2079
ANSWERED ON:01.12.2000
SUCROSE CONTENT IN SUGARCANE
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Will the Minister of CONSUMER AFFAIRS, FOOD AND PUBLIC DISTRIBUTION be pleased to state:

(a) the percentage recovery of sugar from sugarcane in Gujarat as compared to Uttar Pradesh during 1998-99 and 1999-2000;

(b) the sucrose content in the sugarcane of Gujarat and that of Uttar Pradesh;

(c) the action taken to have an indepth analysis of the constraints of lower sugar recovery; and

(d) the action taken on the recommendations of the Committee constituted in this regard?

Answer

THE MINISTER OF STATE IN THE MINISTRY OF CONSUMER AFFAIRS, FOOD AND PUBLIC DISTRIBUTION (S SRIEENIVASA PRASAD)

(a) The average percentage recovery of sugar from sugarcane in Gujarat and Uttar Pradesh (UP) during 1998-99 and 1999-2000 was as under:-

	1998-99	1999-2000
Gujarat	10.39%	10.25%
U.P.	9.03%	9.34%

(b) Normally, the sugar factories do not determine the sucrose content in cane. However, the sugar factories determine the pol percent cane inferentially which is 2% higher than the recovery percent cane.
(c) & (d) : The Government of Gujarat has informed that a general analysis and study indicates that soil structure, climatic changes, excessive use of water, salinity in the soil, insufficient pest management and wrong mix of fertilizers and lack of required varietal development are the major reasons for low sucrose content in sugarcane in Gujarat.
The Government of U.P. has informed that low sugar recovery in the sugar factories of U.P. is due to old and obsolete machinery, long distance transportation of sugarcane, non-availability of early maturing varieties of sugarcane in many sugar factory areas, etc.
The Central Government had constituted a Committee under the Chairmanship of Secretary (Agriculture & Cooperation) in respect of sub-tropical region,i.e., U.P. & Bihar, with the following terms of reference:-

(i) To suggest measures for increasing average sugar recovery through varietal diversification & effective extension.

(ii) To suggest methods for effective operationalisation of Sugar Development Fund.

(iii) To assess the need to strengthen cooperative structure and credit availability to farmers.

The recommendations of the Committee and the follow up action taken thereon are at Annexure.
The Government of Gujarat has also appointed a High Level Committeeto frame sugar policy for development of sugar industry on sustainable basis which will also look after issues relating to raising of sucrose content.

ANNEXURE
ANNEXURE REFERRED TO IN REPLY TO PARTS (c) & (d) OF UNSTARRED QUESTION 2079 FOR ANSWER IN THE LOI SABHA ON 01-12-2000.

Recommendations	Action taken

1.Productivity and recovery of sugar in Uttar Pradesh has been fairly low compared to the states not only in tropical regions but also in other states in the northern region.	It is an observation only.
2.While the research institute under ICAR system have evolved a number of varieties with better yield potential, higher sucrose content to permit improved recovery, their spread has been slow in the state of Uttar Pradesh. Partly this may be due to the decisions of the state government that in respect of varieties to be recommended for cultivation in the different regions of the state these varieties will be based on the recommendations of the State Council of Sugarcane Research. Normally these are based upon the advice of the Sugarcane Research Station at Shajahanpur.	For approving the varieties of sugarcane to be grown in the State of U.P., a Committee has been constituted comprising a representative of farmers and research scientist. After discussions by the scientists of the U.P. Sugarcane Research Council, Sahjahanpur, Seorahi, Pant Nagar, etc., the decision for releasing sugarcane is taken.
3.It could be better that even in respect of varietal evaluation in the case of sugarcane, the same procedure as adopted under trials of improved varieties under various All-India Crop Improvement Projects are adopted. That is performance of all promising varieties sponsored are tried out and that in this process the Coordinator of the All-India Coordinated Project is consulted. It would be worthwhile to evaluate all varieties irrespective of the location of the institute which is sponsoring the variety.	The suggestion of the Agriculture Commissioner will be discussed in the forthcoming Group Meeting of AICRP on Sugarcane and the decision will be implemented.
4.In the evaluation of the results of the trials it would be useful to associate the sugar factories also, so that they would be able to judge the varieties which could be profitably cultivated in their catchment areas from where the sugarcane is drawn for crushing. Recent decisions of the Government of Uttar Pradesh is commended and this should be invariably followed.	The selected sugar factories spread over in all the five agro climatic zones of the country are evaluating the performance of sugarcane varieties entered into the advanced varietal trials of AICRP on sugarcane.
5.Systematic evaluation of all the varieties being evolved by different research institutes in India could assist in the farmers and sugar factories having a better field of selection of the varieties which they could cultivate for enhancing productivity and production with higher sucrose content.	The sugar factories have been advised to undertake trials of the promising varieties of sugarcane which are in pipeline and are being considered for demonstration at farmers fields by the different sugarcane research stations in the country.
6.There is need for a time-bound programme for varietal diversifi- cation. Improved varieties with better tolerance to red rot, higher sucrose content and varying maturities should be attempted in a time-bound manner, with a view to achieving at least 25% of the a	Research efforts are underway at SBI, Coimbatore and in the All-India Coordinated Research Project on Sugarcane to develop varieties with different maturity periods, high sucrose content nd tolerance to major diseases/insects.

cane area being brought under recommended early varieties within a span of four years.	
7.There is need for systematic multiplication of sugarcane planting material. The nucleus seed of planting material could be drawn from the institution where the variety is evolved, but the further multiplication as breeder seed could be undertaken by the research institution under the Sponsored Breeder concept. Such institutions could be research stations of the State Agriculture Universities, or the research farms maintained by even the sugar factories provided the scientists working at the farms are recognised as sponsored breeders by the coordinators or the ICAR.	The sugar factories particularly in the State of U.P. have been advised to take up seed multiplication programmes by adopting 3 tier seed multiplication programme developed by the Indian Institute of Sugarcane Research (IISR), Lucknow, namely, beeder seed, foundation seed and certified seed.
8.Further multiplication of the breeder seed should be undertaken as foundation seed in close associa- tion with sugar mills and the cane societies on the lands of progre- ssive farmers under contract-growing arrangements adopting a cluster of villages approach. The foundation seed material should be further multiplied in all the important disease free areas by the growers. This should be undertaken under the aegis of the sugar mills and the concerned cane societies.	In the State of U.P., breeder seeds are planted in the fields of those farmers only who are members of Sugarcane Seed Corporation.
9.The sugar mill or the mill along with cane society could establish required hot air treatment plants to treat the planting material so that the planting material is free from red rot disease which is an important factor leading to lower yields of cane.	The Sugar Development Fund (SDF) assistance is being provided to sugar factories for setting up heat treatment plants. The sugar factories have been requested to send the information about the establishment of heat treatment plants.
10.Quick multiplication of promising varieties could be accelerated through Tissue Culture methods. The existing schemes of the Department of Agriculture and Cooperation provide financial assistance for the establishment of Tissue Culture laboratories. The task would be facilitated by standardising the protocols for micro propagation of sugarcane, which essentially could focus on multiplication of the nucleus material drawn from the research institutions to provide the planting material requirements for further multiplication by the factories in association with the sugarcane farmers and the concerned cane cooperative societies.	The SDF assistance is being provided for quick multiplication of promising varieties through Tissue Culture method. They have also been requested to send information about the establishement of tissue culture laboratories, if any.
11.Cane Cooperative Societies have been established taking the responsibility for supply of sugarcane to the factories from what could be called the catchment area of the factory. It is	This is an observation of the Committee and no action is required.

understood that only the societies which could supply cane to the factory. It is also understood that even in the case of Cooperative sugar factories the supply of sugarcane is organised by the concerned cane society and the factory management has little say in drawing the sugarcane for crushing. Only in respect of new cooperative factories there is no stipulation that cane society alone has the responsi bility for supply of cane. It was also expected that the cane society would provide a variety of services to the sugarcane growers apart from assisting the delivery of the cane to the factory and getting the payments for sugarcane supplied to the factory for farmers. The societies were expected to assist the farmers in obtaining critical inputs such as the planting material, adequate credit, ensure availability of fertilizers, etc. it would appear that many of the societies are in a position to undertake these tasks for often the health of the factory and the cane society go hand in hand.

12.The cane societies could play an important role and necessarily they must be controlled by the sugarcane growing farmers members and as fully accountable to the farmers alone. It would appear that this is not always the case. The state government should ensure that all sugarcane farmers become members of the society, if not already enrolled.

In the State of U.P., only the members of the cane cooperative societies are supplying sugarcane to the sugar mills.

13.The cane societies in association with the sugar mills must plan for staggered planting of cane by their members which could ensure harvesting of cane at the right stage of maturity for supply to the mills, thereby increasing the recovery of sugar. The societies together with mills must also ensure that the credit requirements of sugarcane cultivation would be provided by the financial institutions with recovery of the loans tied up with supplies of cane to the factories. The societies could also over time consider undertaking harvesting of cane of the members and delivery to the factories on a centralised basis as is the practice of cooperative sugar factories

In the State of U.P., the planting of cane by their and spring seasons. In the Western U.P., the cane planting takes place little late while in Central U.P., it takes place on time. The U.P. Government provides information about cane sowing, etc. from time to time.

14.An important aspect is the management of ratoon crops and it is necessary to extend the technologies being generated amongst the farmers so that the yield gaps between the planted and ratoon crops could be minimised to the extent possible.

The practice recommended for management of ratoon crop recommended by Ministry of Agriculture have been sent to all the sugar factories for information and adoption by the farmers on their areas.

15.The Sugar Development Funds have been used to promote research on sugarcane and to assist the factories

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in cane development work. Specific factories in cane development work programmes for planting material, including development and treatment treatment for the planting material of planting material to produce to produce disease free material disease free material. could be projectised for funding from the SDF. In this the programme should be developed by the mills and the concerned societies jointly.

16.There have also been suggestions The khandsari untis have been for permitting establishment of permitted to change their process vacuum pan factories of even low of manufacture from open pan capacity, i.e., the existing to vacuum pan process. conserving sugar factory also go in for the putting for vacuum pans. Feasibility of permitting this should be examined for taking up this by the Department of Sugar & Edible Oils.

17.At present payment to farmers The payment of cane price to the are made on the basis of weight farmers is being made on weight basis. of cane and not on the sugar The importance of the payment on content. This discourages farmers quality basis has been recommended from growing varieties of high sugar time and again. As a large number content. Rapid techniques for of farmers are supplying sugarcane assessing sugar content which has to the factories, the assessment of been developed with the help of sugar content of the cane supplied HPCL need to be standardised and by each and every farmer is not perfected. possible with the present available technology. The trials are being undertaken by the Sugar Technology Mission in collaboration with National Physical Laboratory in a sugar factory for determining sugar content through NIR technique. As and when the technology is available for commercial use, the payment of cane on quality basis would be possible.